

(FILE 'HOME' ENTERED AT 17:22:07 ON 25 SEP 2001)

FILE 'MEDLINE, CANCERLIT, CAPLUS, BIOTECHDS' ENTERED AT 17:33:45 ON 25 SEP 2001

L1 35799 S OBESE  
L2 25871 S MESENCHYMAL  
L3 22566 S OB  
L4 55219 S L3 OR L1  
L5 46 S L4 AND L2  
L6 25 DUP REM L5 (21 DUPLICATES REMOVED)  
L7 60 S EX VIVO AND L4  
L8 37 DUP REM L7 (23 DUPLICATES REMOVED)  
L9 92 S L1 AND OSTEOP?  
L10 0 S L9 AND GENE THERAPY  
L11 9 S L9 AND CELL#  
L12 7 DUP REM L11 (2 DUPLICATES REMOVED)  
L13 115 S L1 AND STROMA#  
L14 12 S L13 AND THERAP?  
L15 9 DUP REM L14 (3 DUPLICATES REMOVED)  
L16 90568 S L2 OR STROMA#  
L17 718 S L16 AND GENE THERAPY  
L18 25 S L17 AND (OSTEOP? OR OBES?)  
L19 17 DUP REM L18 (8 DUPLICATES REMOVED)  
L20 38 S L17 AND REVIEW

L21 ANSWER 24 OF 26 BIOTECHDS COPYRIGHT 2001 DERWENT INFORMATION LTD  
AN 1995-11379 BIOTECHDS

TI Collagens: molecular biology, diseases and potentials for therapy;  
cartilage and bone disease \*\*\*gene\*\*\* \*\*\*therapy\*\*\*  
strategies; a \*\*\*review\*\*\*

AU Prockop D J; Kivirikko K I

CS Univ.Philadelphia-Thomas-Jefferson-Inst.Mol.Med.; Univ.Oulu

LO Department of Biochemistry and Molecular Biology, Jefferson Institute of  
Molecular Medicine, Jefferson Medical College of Thomas Jefferson  
University, Philadelphia, PA 19107, USA.

SO Annu.Rev.Biochem.; (1995) 64, 403-34  
CODEN: ARBOAW ISSN: 0066-4154

DT Journal

LA English

AB Collagens are reviewed, with respect to: the collagen family of proteins  
and genes (structure and functions of the collagen triple helix, and  
types of collagen); biosynthesis (intracellular processing, extracellular  
events, and potentials for inhibiting fibrosis); and mutations (mutations  
in patients, transgenic mouse mutations and potentials for \*\*\*gene\*\*\*  
\*\*\*therapy\*\*\*). \*\*\*Gene\*\*\* \*\*\*therapy\*\*\* may be used to  
control collagen deposition in fibrotic conditions or to rescue the  
phenotypes produced by mutated genes. An antisense gene against the  
human COL1A1 gene is effective in transgenic mice with a fragile bone  
phenotype caused by an internally deleted minigene for the pro-alpha-1  
chain of human type-I procollagen, causing a reduction in incidence of  
the lethal phenotype from 92% to 27%. Mice transplanted with bone marrow  
\*\*\*stromal\*\*\* cells from a transgenic mouse containing a human COL1A1  
minigene DNA marker have shown COL1A1 minigene expression in bone,  
showing that the \*\*\*stromal\*\*\* cells may be a useful source of  
long-lasting precursor cells for \*\*\*gene\*\*\* \*\*\*therapy\*\*\* of bone  
and cartilage disease. Targeted insertion studies are also discussed.

L21 ANSWER 23 OF 26 MEDLINE  
 AN 96231139 MEDLINE  
 DN 96231139 PubMed ID: 8646477  
 TI The biology and application of human bone marrow \*\*\*stromal\*\*\* cell precursors.  
 AU Gronthos S; Simmons P J  
 CS Matthew Roberts Laboratory, Hanson Centre for Cancer Research, Adelaide, Australia.  
 SO JOURNAL OF HEMATOTHERAPY, (1996 Feb) 5 (1) 15-23. Ref: 74  
 Journal code: B3T; 9306048. ISSN: 1061-6128.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 199607  
 ED Entered STN: 19960805  
 Last Updated on STN: 19960805  
 Entered Medline: 19960725  
 AB The importance of the \*\*\*stromal\*\*\* tissue of the bone marrow in regulating hemopoiesis is well documented. However, several features of marrow \*\*\*stromal\*\*\* cell biology remain poorly understood, in particular, the ontogeny and phylogeny of the various \*\*\*stromal\*\*\* elements that comprise the microenvironment of the bone marrow. In this article we \*\*\*review\*\*\* recent data concerning the immunophenotype and functional characteristics of precursor cells for marrow \*\*\*stromal\*\*\* tissue. The study of these \*\*\*stromal\*\*\* precursor cells (SPC) represents an exciting new field of research that will almost certainly expand in the future as we gain a greater understanding of the cellular and molecular events, environmental cues, and growth factors that physiologically regulate the commitment and subsequent development of SPC. Although the field of marrow SPC biology is in its infancy, we predict that future studies will result in several novel clinical applications for SPC. We, therefore, conclude this article by speculating on a number of these potential applications and, thus, view SPC and their progeny as likely vehicles for several novel and important cellular therapies,

L21 ANSWER 2 OF 26 MEDLINE  
 AN 2000220516 MEDLINE  
 DN 20220516 PubMed ID: 10757017  
 TI Stem cell therapy and gene transfer for regeneration.  
 AU Asahara T; Kalka C; Isner J M  
 CS St Elizabeth's Medical Center, Tufts University School of Medicine, Boston, MA, USA.  
 SO GENE THERAPY, (2000 Mar) 7 (6) 451-7. Ref: 62  
 Journal code: CCE; 9421525. ISSN: 0969-7128.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LA English  
 FS Priority Journals  
 EM 200004  
 ED Entered STN: 20000505

Last Updated on STN: 20000505

Entered Medline: 20000426

AB The committed stem and progenitor cells have been recently isolated from various adult tissues, including hematopoietic stem cell, neural stem cell, \*\*\*mesenchymal\*\*\* stem cell and endothelial progenitor cell. These adult stem cells have several advantages as compared with embryonic stem cells as their practical therapeutic application for tissue regeneration. In this \*\*\*review\*\*\*, we discuss the promising \*\*\*gene\*\*\* \*\*\*therapy\*\*\* application of adult stem and progenitor cells in terms of modifying stem cell potency, altering organ property, accelerating regeneration and forming expressional organization.